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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,617	07/07/2003	Timothy Robert Richards	DN2003112	7480
27280	7590	07/25/2005	EXAMINER	
THE GOODYEAR TIRE & RUBBER COMPANY INTELLECTUAL PROPERTY DEPARTMENT 823 1144 EAST MARKET STREET AKRON, OH 44316-0001			MAKI, STEVEN D	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/614,617

**Applicant(s)**

RICHARDS ET AL.

**Examiner**

Steven D. Maki

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1) The drawings were received on 5-16-05. Replacement sheet 3 and Replacement sheet 4 have been approved and accepted by the examiner. However, the Replacement sheet 2 for figure 1A has not been entered as it introduces new matter. See MPEP 608.02(x), page 600-110, Rev. 2 2004. Original figure 1A correctly illustrates a portion of the sequence of figure 1. The original disclosure fails to reasonably convey changing the sequence of blocked / non-blocked lateral grooves to that shown in Figure 1A of the Replacement Sheet filed 5-16-05. It is suggested to correct original figure 1A by deleting 17A for the blocked groove in figure 1A and indicating the next above lateral groove as 17A.

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the addition of the subject matter at the last six lines to the subject matter at the first nine lines. The subject matter at the last six lines, which has no explicit basis in

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the original disclosure, redefines the invention in a manner not contemplated by the original disclosure and is not reasonably conveyed by the original disclosure. The original disclosure fails to describe "footprint regions" and arbitrarily selecting "at least one footprint region" and "at least one other footprint region" from the pitch sequence of figure 2B or figure 3B. The original disclosure fails to contain a special definition of "footprint region" (in contrast to "footprint"). The original disclosure for example fails to reasonably convey arbitrarily selecting footprints F, G, E and H as shown in the marked up copy of figure 2B attached to the response filed 5-16-05. It is noted that figure 1A of the original disclosure shows each pitch PL, PS, PM1 and PM2 as extending across the entire width of the tread (from one lateral edge to another lateral edge). Each of these pitches includes closed lateral grooves 18. With respect to the marked up copy of figure 2B attached to the response filed 5-16-05, applicant identifies Footprint E as having "All Open" lateral grooves. Contrary to this indication, some of the lateral grooves (i.e. the lateral grooves 18) in "Footprint E" are closed. Furthermore, the description of "a predetermined sequence of non-uniformity" in the original disclosure is descriptive of the pitch sequence surrounding the circumference of the tread instead of a limited partial sequence in the arbitrarily selected Footprints E, F, G and H or Footprints A, B, C and D shown in the attachments to the response filed 5-16-05. The original disclosure provides no guidance for "intermixing open and blocked lateral grooves" in a pitch or pitches of a combination of pitches within "at least one other footprint region". It is noted that "footprint region" and "contact patch" are different concepts (a "footprint region" may be only a part of a "contact patch"). Also, the original disclosure fails to

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support using both "a predetermined sequence of non-uniformity" described at line 15 of claim 1 and "a predetermined sequence of non-uniformity" as described at lines 8-9 of claim 1.

4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5) Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1-10, the claimed arrangement of pitches is unclear. With respect to claim 1, the relationship, if any, between "a predetermined sequence of non-uniformity" described at line 15 of claim 1 and "a predetermined sequence of non-uniformity" as described at lines 8-9 of claim 1 is unclear. As to related matter, there is no clear antecedent basis for "the predetermined sequence of non-uniformity" in claims 2 and 8. Which sequence (the sequence at lines 8-9 or the sequence at line 15) is being described in claims 2 and 8?

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**8) Claims 1-5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Stumpf (AT 403358).**

The claimed tire reads on Stumpf's tire having a tread as shown in figure 2a.

Stumpf's tire has reduced noise when rolling on a paved road. The claimed circumferential grooves read on the illustrated two circumferential grooves. The claimed lateral grooves read on the illustrated transverse grooves (lateral grooves) in the shoulder extending from the tread end toward the circumferential groove. As can be seen from figure 2a, some lateral grooves open to the circumferential grooves whereas the remainder of the lateral grooves in the shoulder are blind lateral grooves (blocked lateral grooves).

In claim 1, "pitch" reads on the combination of one tread element (one land portion) and one lateral groove. Applicant describes "pitch" as being a single occurrence of a "design feature" repeated circumferentially around the tread. The term "design feature" is sufficiently broad to read on the combination of a single land portion (connected or not connected to another land portion) and a single lateral groove (open or blind).

In Figure 2a of Stumpf, the left shoulder row illustrates 18 such pitches wherein 13 of these pitches comprise a blocked lateral groove and 5 of these pitches comprise an open lateral groove. Stumpf's tire, like all tires, can contact a road surface. The

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contact patch (also known as a footprint) is the area of contact between the tire and road. Stumpf's tire inherently can contact the road such that (1) "at least one footprint region" (emphasis added, a first shoulder portion of the contact patch having a length less than that of the footprint) comprises all blocked lateral grooves, for example two blocked grooves and (2) "at least one other footprint region" (emphasis added, a different shoulder portion of the contact patch, which may or may not overlap the first shoulder portion of the contact patch) comprises "a combination of pitches in which open and blocked lateral grooves are intermixed according to a predetermined sequence of non-uniformity". In addition to the observation claim 1 describes "footprint region" *instead of* "contact patch", it is noted that claim 1 describes "at least one footprint region comprises a combination of pitches having either all open or all blocked lateral grooves" (emphasis added) and thereby requires the "combination" *instead of* the "region" to have all open or all block lateral grooves. The tread elements are illustrated as having at least three different sizes. The claimed casing is inherent in Stumpf's tire having reduced noise when rolling on paved road.

9) **Claims 1-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpf in view of Landers (US 4474223) and Japan 303 (JP 7-81303).**

Stumpf, discussed above, is considered to anticipate claim 1. In any event: it would have been obvious to one of ordinary skill in the to apply pitching to the shoulder row of Stumpf's tire tread such that a tread element and a lateral groove define a pitch and the shoulder row comprises at least three different pitch sizes since Landers, also

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directed to reducing noise of a tire tread, suggests defining a design cycle as including a load bearing element 13 and an adjacent groove 13 and providing the design cycle with at least three different pitch lengths to reduce noise. Furthermore, it would have been obvious to one of ordinary skill in the art to provide Stumpf's tire as a pneumatic tire (tire with a casing) such that "at least one footprint region" of the contact patch comprises shoulder lateral grooves which are all blocked and "at least one other footprint region" comprises a combination of pitches in which open and blocked lateral grooves are intermixed according to a predetermined sequence of non-uniformity in view of (1) Stumpf's teaching to configure the tread such that the shoulder region of the tire tread comprises (a) groups of blocked lateral grooves such as a group of four blocked shoulder lateral grooves and (b) open shoulder lateral grooves arranged according to a non-uniform sequence and (2) Japan 303's teaching to provide a pneumatic tire with a ground contact area having a length m at the shoulder (apart from the centerline by 90%) being 65-80% of the length M at the maximum ground contact length to improve wet performance; it being noted that Japan 303's figure 1 shows the shoulder as having at least four shoulder lateral grooves in the footprint and Stumpf teaches at least one region having four blocked shoulder lateral grooves in a row.

As to the dependent claims: As to claims 2 and 3, note the illustrated arrangement of open lateral grooves and blind lateral grooves in the shoulder of the tread shown in figure 2a. As to claims 4-6, it would have been obvious to use four pitches and 60-120 pitches in Stumpf's tread in view of Landers teaching to use plural different pitch sizes and 45-75 pitches. Amended claim 8, which reads on the sequence



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of non-uniformity having 9 pitches, reads on the arrangement of pitches in figure 2a. As noted above, figure 2a demonstrates 18 pitches. As to claims 9 and 10, the limitations therein read on the illustrated blockage causing the blind lateral grooves. The lateral groove is blocked adjacent to the circumferential groove since the blind end is adjacent the circumferential groove. The blind end of the lateral groove is at a "maximum distance" from the circumferential groove; it being emphasized that "maximum distance" is a relative phrase in which the criteria for determining "maximum" is not specified.

**10) Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpf in view of Landers and Japan 303 as applied above and further in view of Wesolowski (US 5753057)**

As to claims 4-7, it would have been obvious to one of ordinary skill in the art to use four different pitches 7-8-9-10 and a total number of pitches of 60-120 in Stumpf's tire tread since Wesolowski teaches using four different pitches 7-8-9-10 and a total number of pitches of 67-103 so that the tire has flatter harmonics which translates to reduced tire noise.

#### Remarks

11) Applicant's arguments with respect to claims 1-10 are have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 5-16-05 have been fully considered but they are not persuasive.

Applicant's arguments regarding Stumpf are not commensurate in scope with the claims and are therefore not persuasive. None of the claims require all of the lateral

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grooves in a contact patch to be either open or closed. With respect to the amendment to claim 1 including the "footprint region" limitations, Claim 1 continues to read on Stumpf. In any event: Note the new ground of rejection using Landers and Japan 303 in combination with Stumpf.

12) No claim is allowed.

13) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

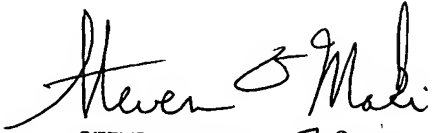
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki  
July 21, 2005

  
STEVEN D. MAKI 7-21-05  
PRIMARY EXAMINER  
~~GROUP 1300~~  
AU 1733